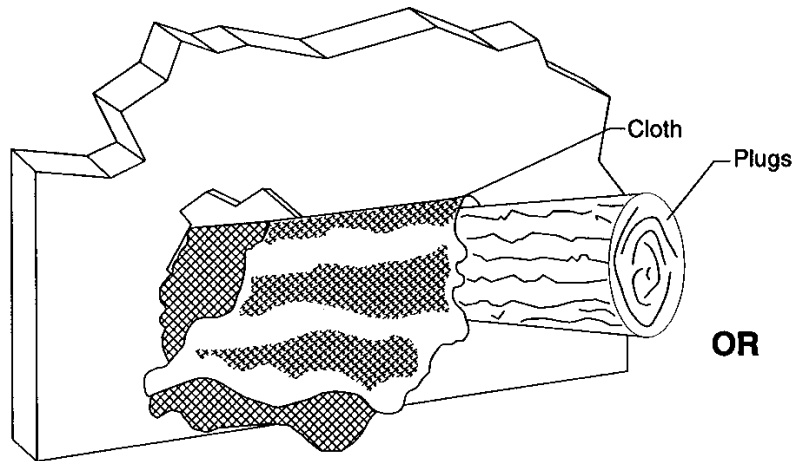


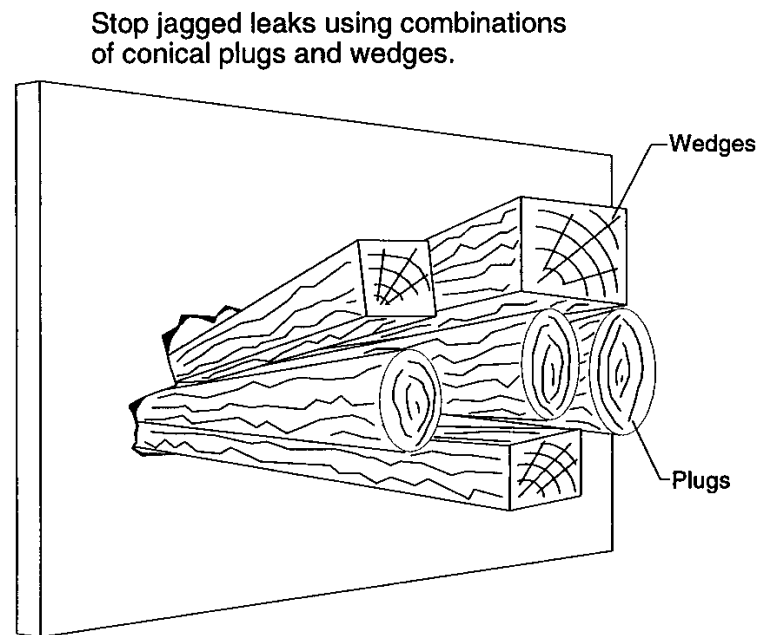
DAMAGE CONTROL LAYOUT SKETCHES
SECTION 10 - PATCHING/PLUGGING EVOLUTION

| SKETCH NO. | TITLE OF SKETCH | SHEET NO. |
|-----------------------|---|----------------------|
| 001 | Use of Wooden Plugs and Wedges in Filling Holes | 10-2 |
| 002 | Plugging with Mattresses | 10-3 |
| 003 | Box Patch | 10-4 |
| 004 | Hinged Plate Patch | 10-5 |
| 005 | Securing Patch with Hook Bolts | 10-6 |
| 006 | Folding T-Patch | 10-7 |
| 007 | Plate Patch | 10-8 |
| 008 | Bucket Patch | 10-9 |
| 009 | Patching and Sealing Crack | 10-10 |
| 010 | Caulking Thin Plating and Torn Seams | 10-11 |
| 011 | Cloth Patch | 10-12 |
| 012 | Emergency Leak Plugging Using Flange Clamp | 10-13 |



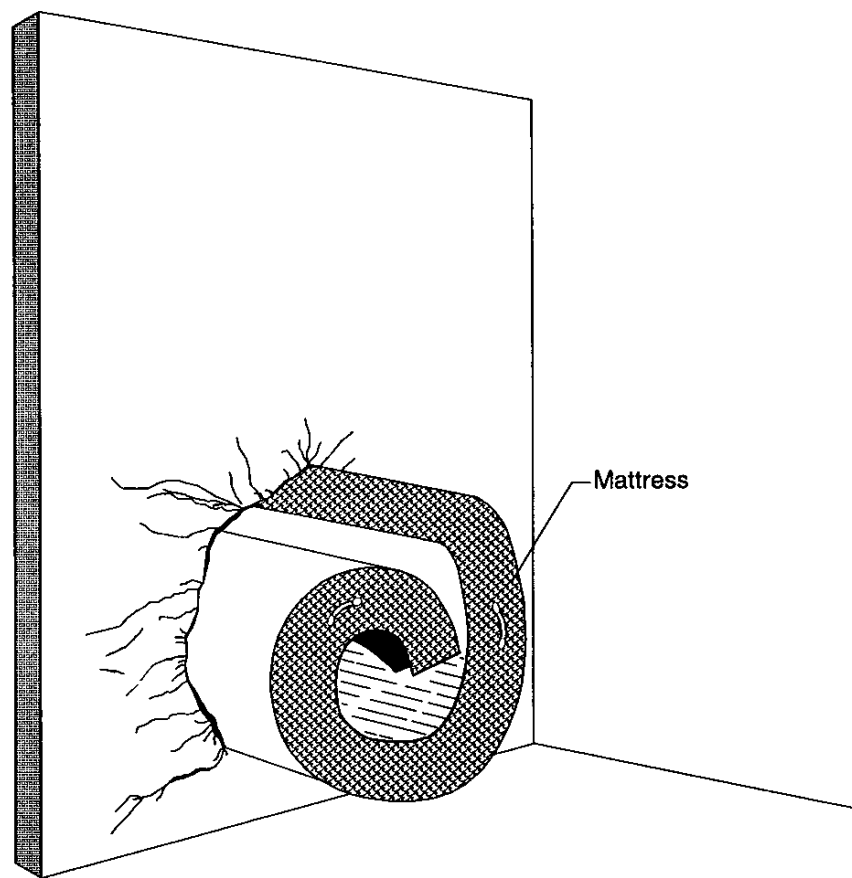
Stop jagged leaks by inserting plug
camel wrapped with cloth.

OR

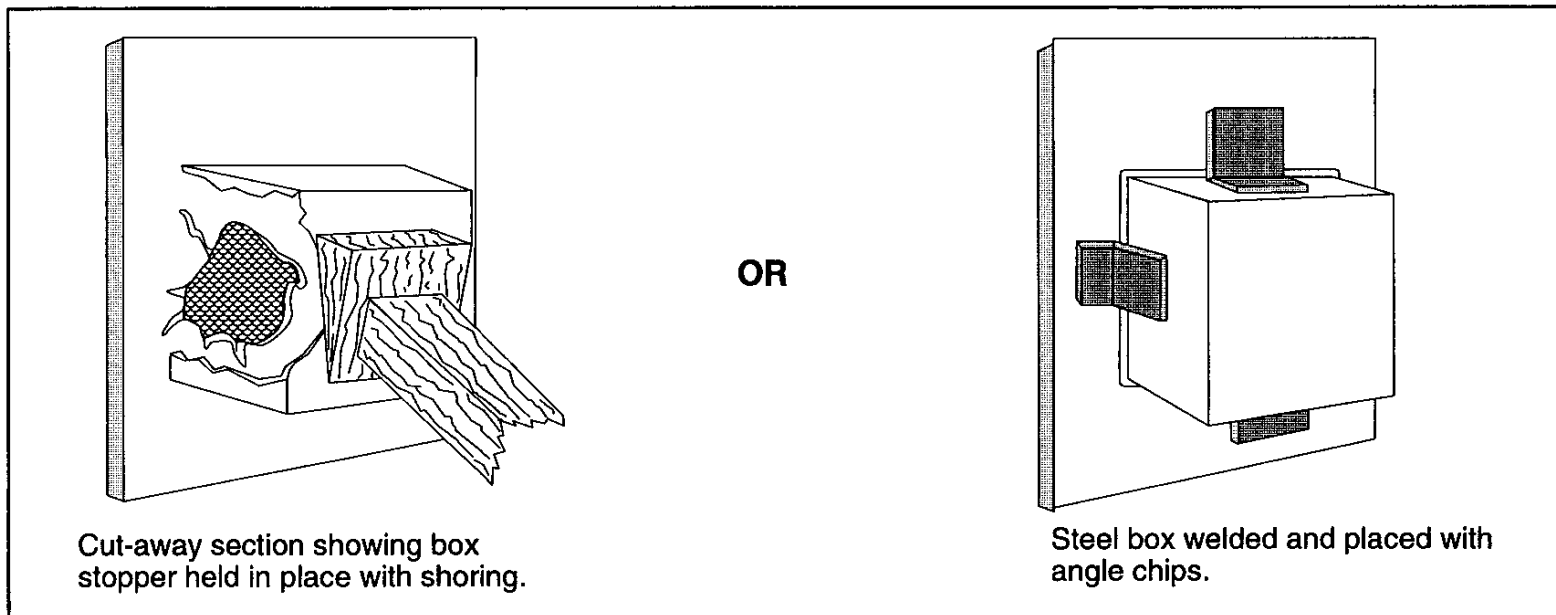
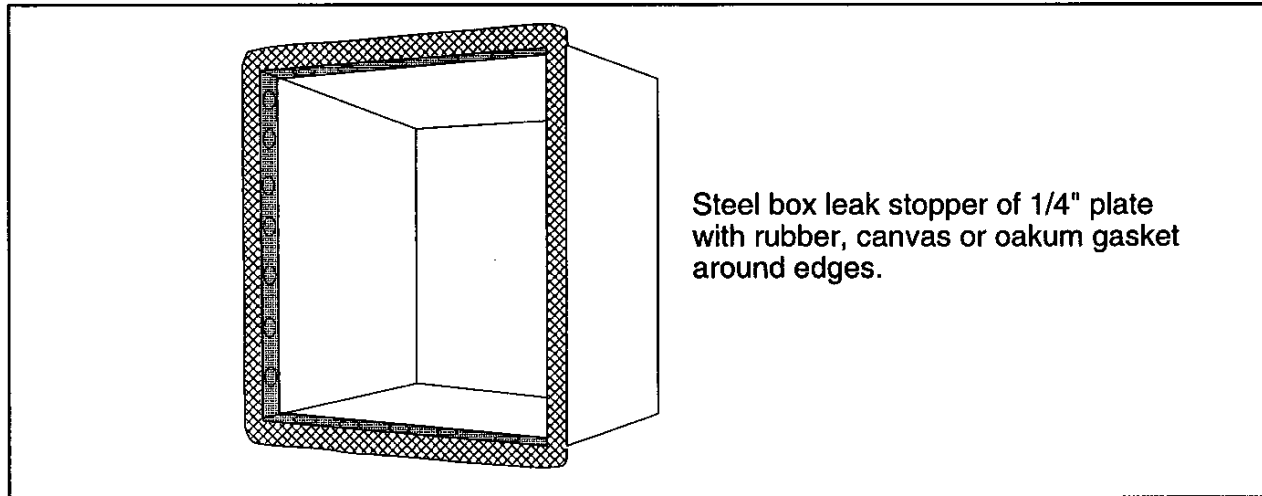


Stop jagged leaks using combinations
of conical plugs and wedges.

PATCHING/PLUGGING EVOLUTION - SKETCH #001
Use of Wooden Plugs and Wedges in Filling Holes

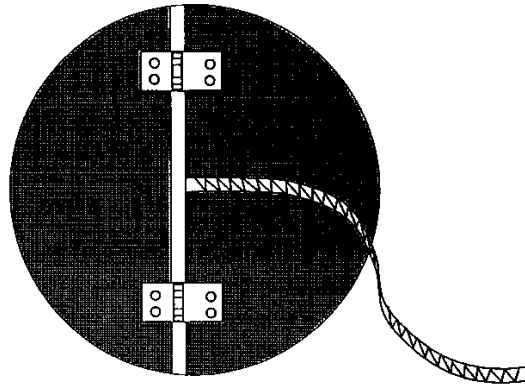


PATCHING/PLUGGING EVOLUTION - SKETCH #002
Plugging with Mattresses



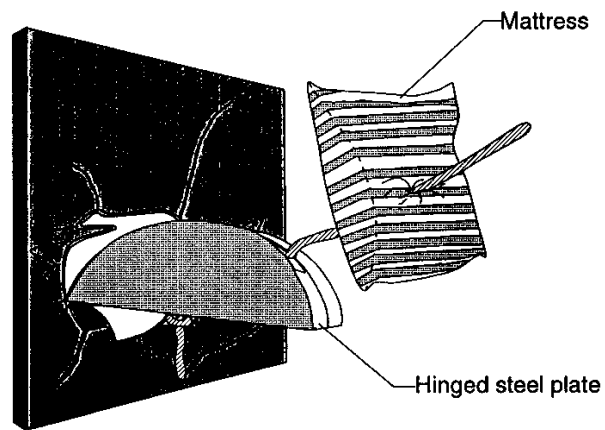
PATCHING/PLUGGING EVOLUTION - SKETCH #003
Box Patch

1



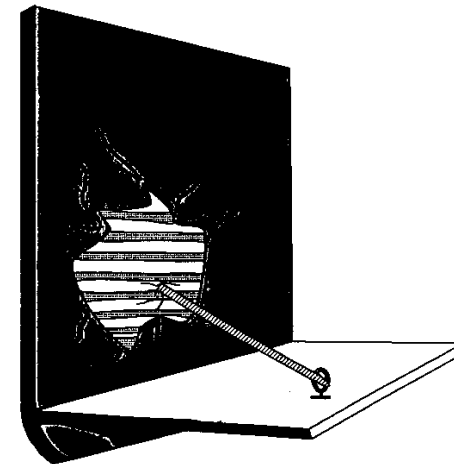
Prefabricated hinged steel plate which can be folded to go through a hole. Use with a pillow or other gasket. Recommended size up to 18" diameter. Use for patching relatively small hole.

2



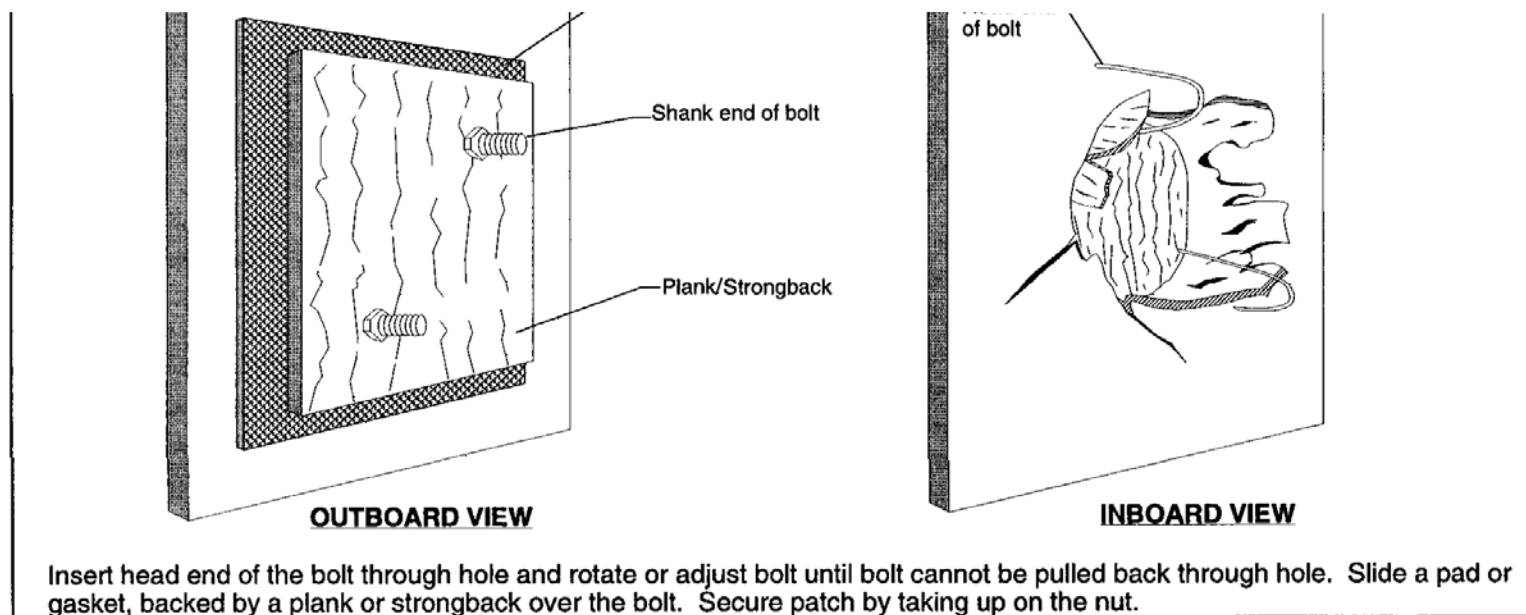
Fit line of plate through a mattress/gasket. Fold plate and push through the hole from inside of ship.

3

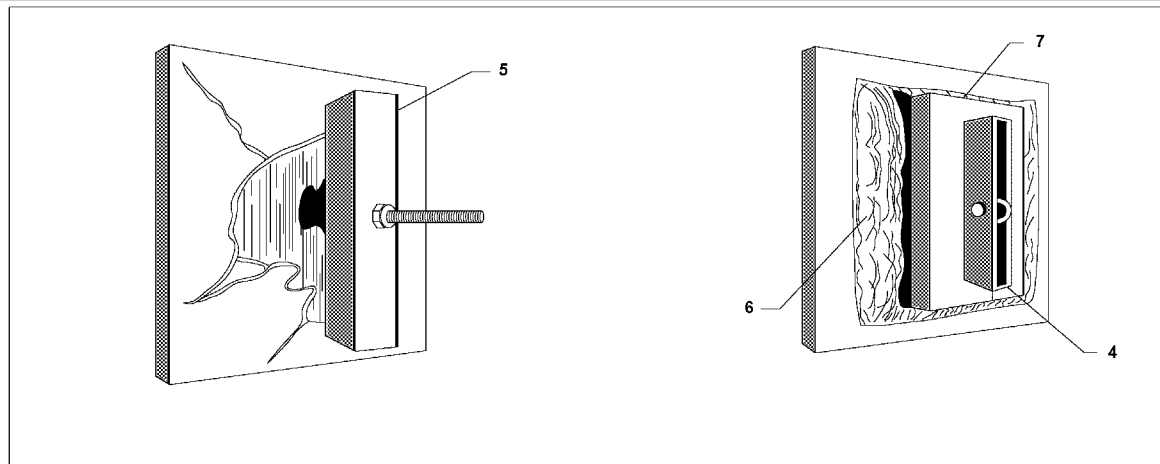
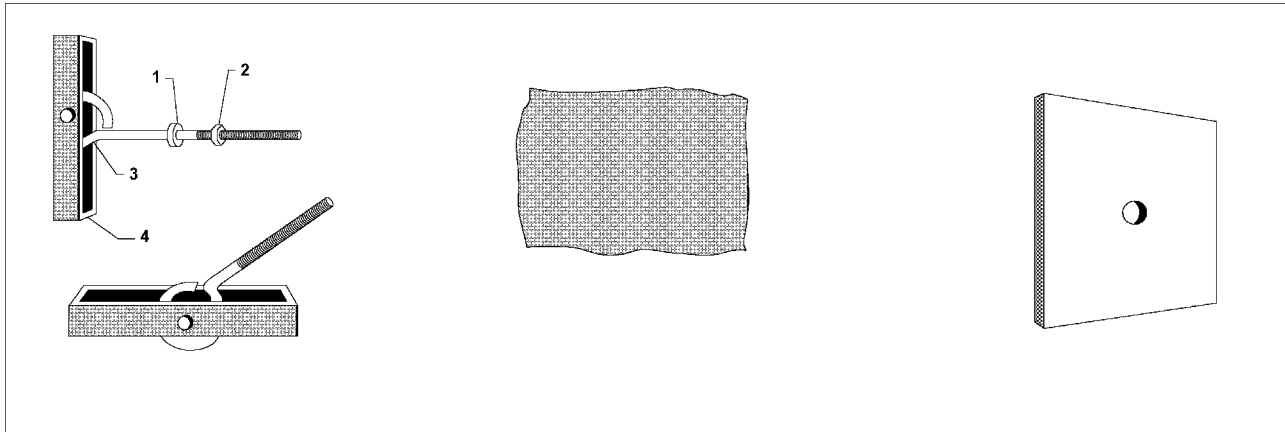


Secure line to the ship.

PATCHING/PLUGGING EVOLUTION - SKETCH #004 Hinged Plate Patch

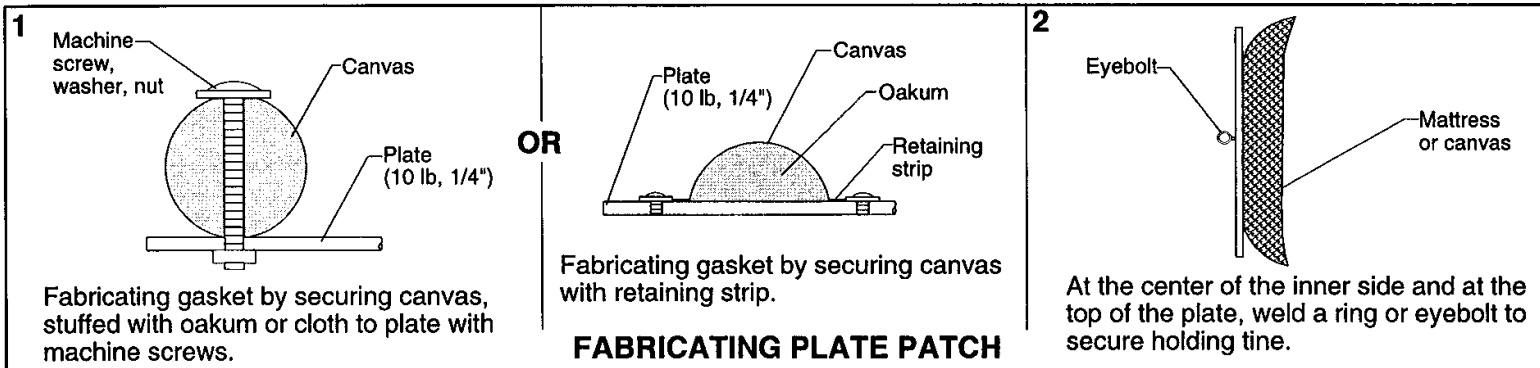


PATCHING/PLUGGING EVOLUTION - SKETCH #005
Securing Patch with Hook Bolts

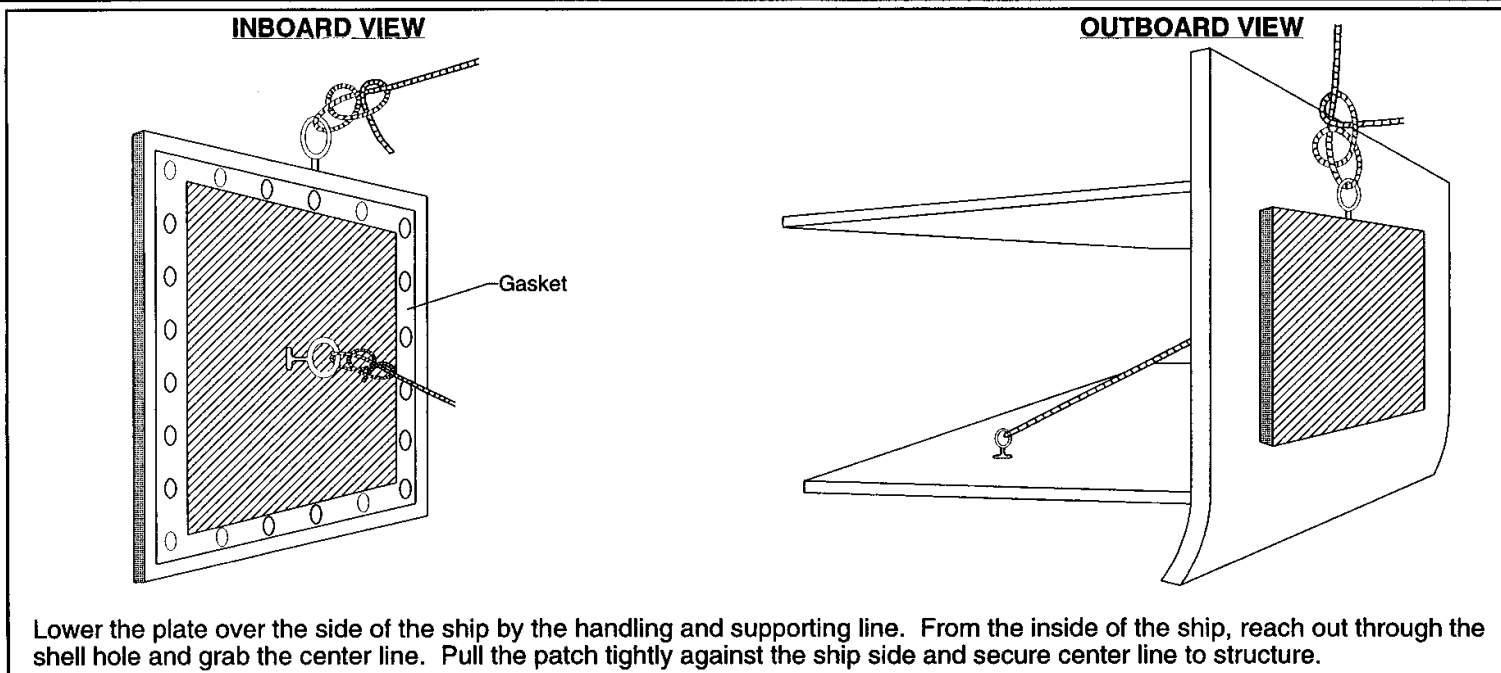


| 1 | 1 | Washer |
|---|---|-------------------------------------|
| 2 | 1 | Nut |
| 3 | 1 | Hinged Joint |
| 4 | 1 | The T |
| 5 | 1 | 4" x 4" Strongback |
| 6 | 1 | Mattress, Blanket or stuffed canvas |
| 7 | 1 | Backing Plate |

PATCHING/PLUGGING EVOLUTION - SKETCH #006
Folding T-Patch

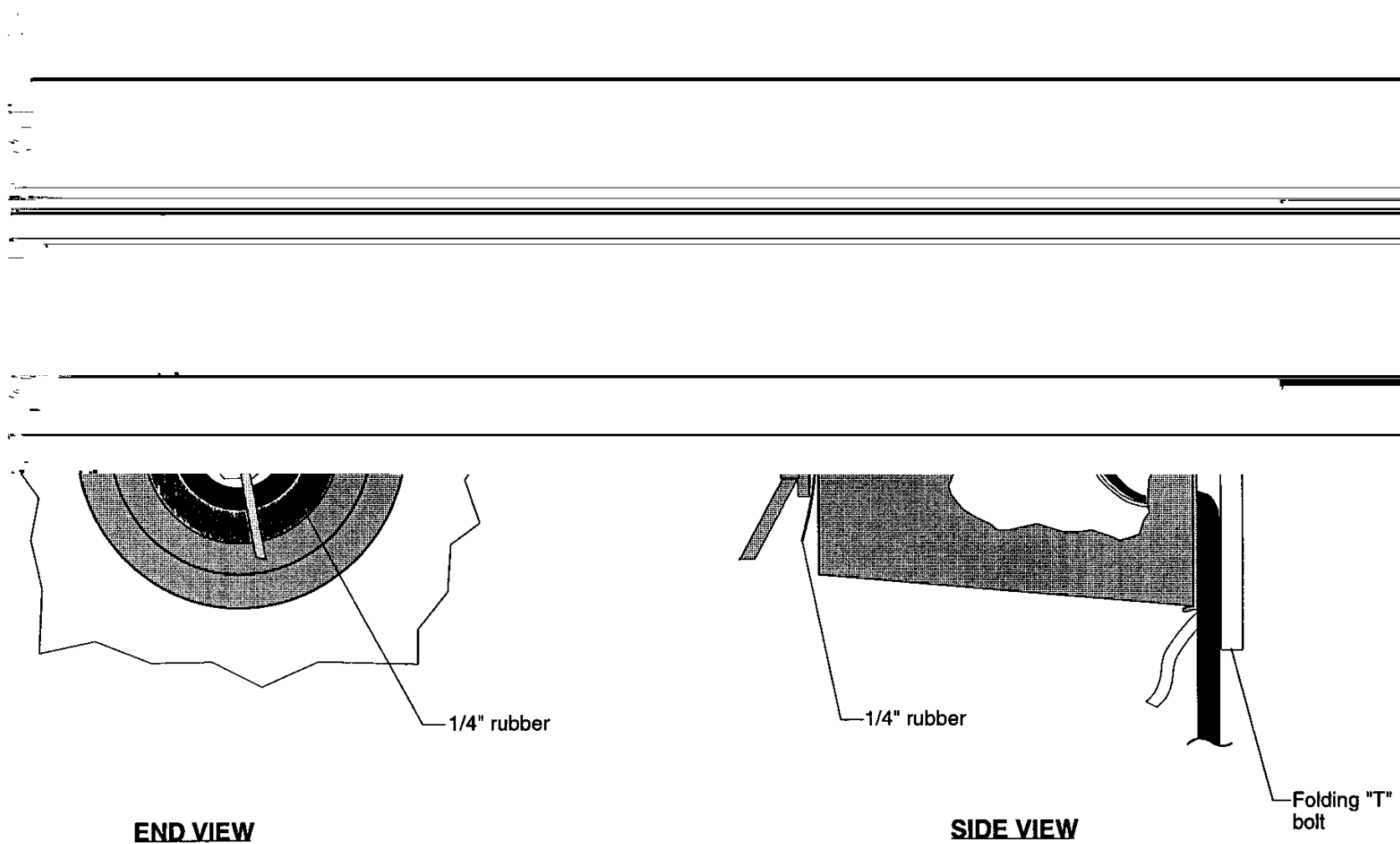


FABRICATING PLATE PATCH

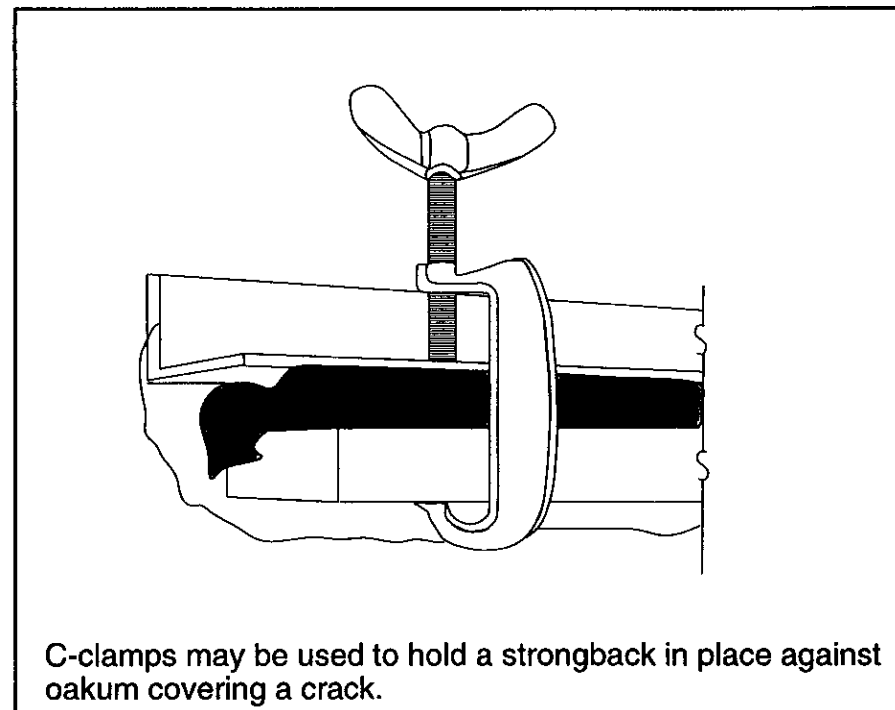
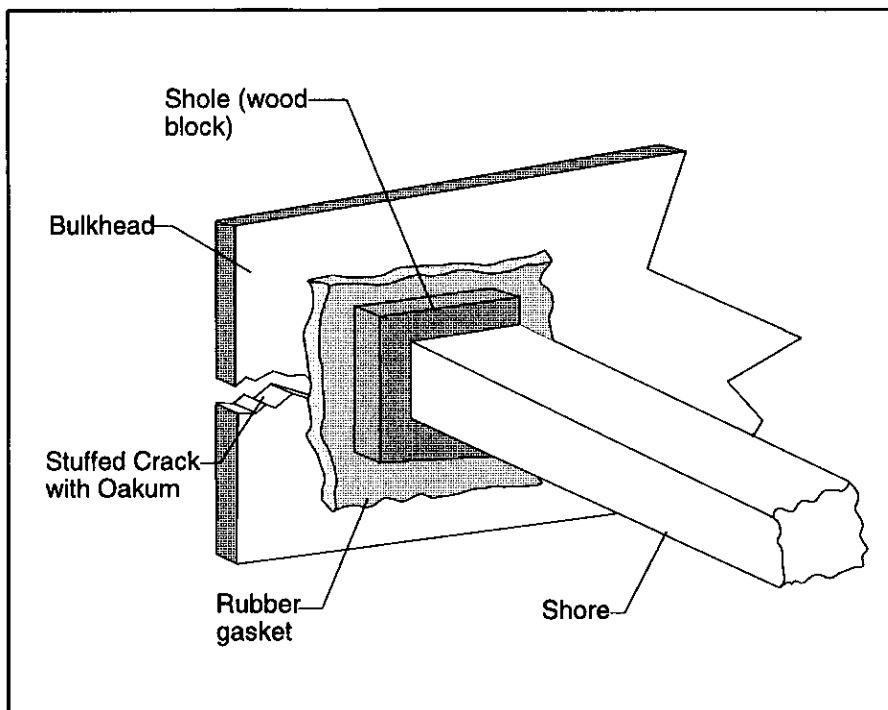


PATCHING/PLUGGING EVOLUTION - SKETCH #007

Plate Patch

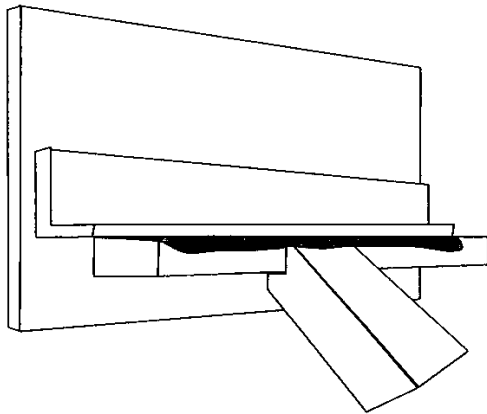


PATCHING/PLUGGING EVOLUTION - SKETCH #008
Bucket Patch

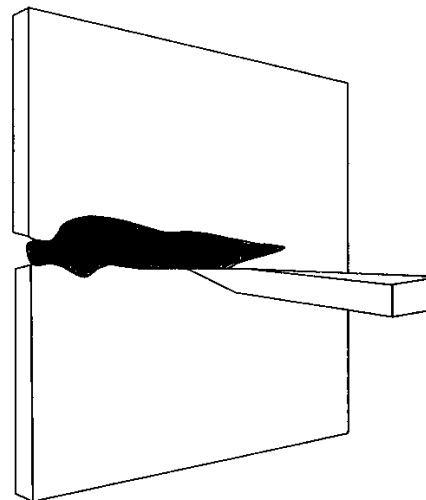


PATCHING/PLUGGING EVOLUTION - SKETCH #009
Patching and Sealing Crack

CAULKING THIN PLATING

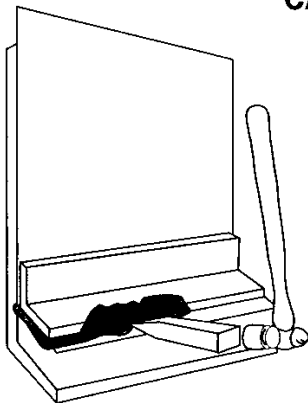


Stop leak under welded frames by bracing oakum or cloth against cracks.

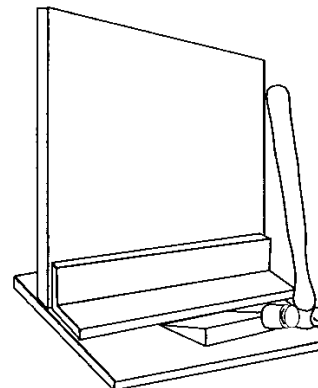


Partially stop leak by driving oakum, marline, or rags into small cracks.

CAULKING TORN SEAMS

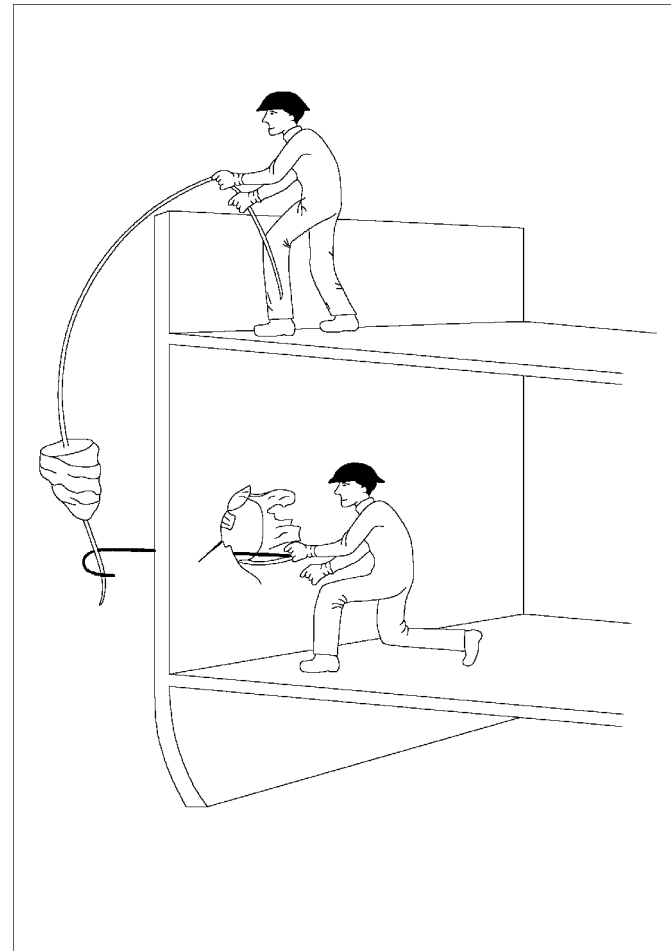
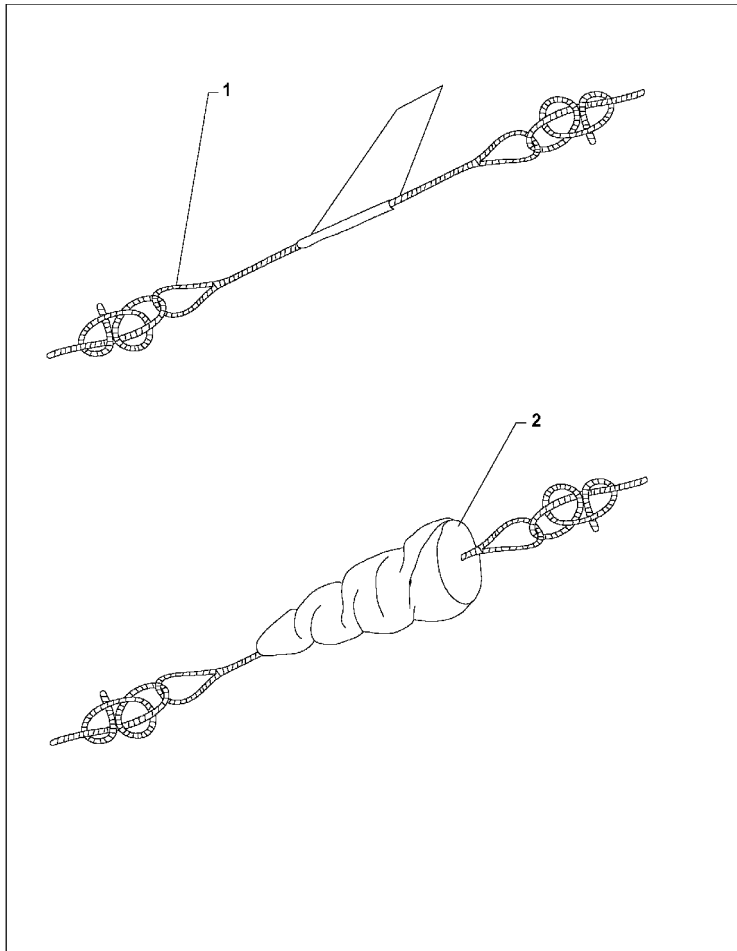


Pack oakum under angle iron to stop leak.



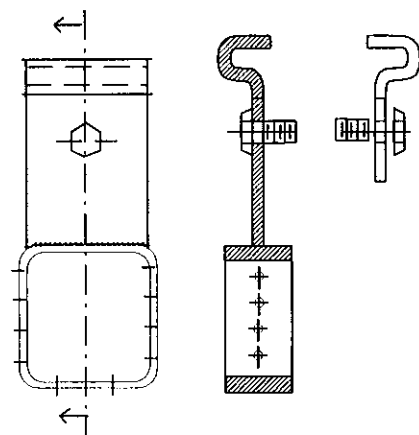
A wedge to be driven home must be of soft wood in order not to open the seam.

PATCHING/PLUGGING EVOLUTION - SKETCH #010 Caulking Thin Plating and Torn Seams

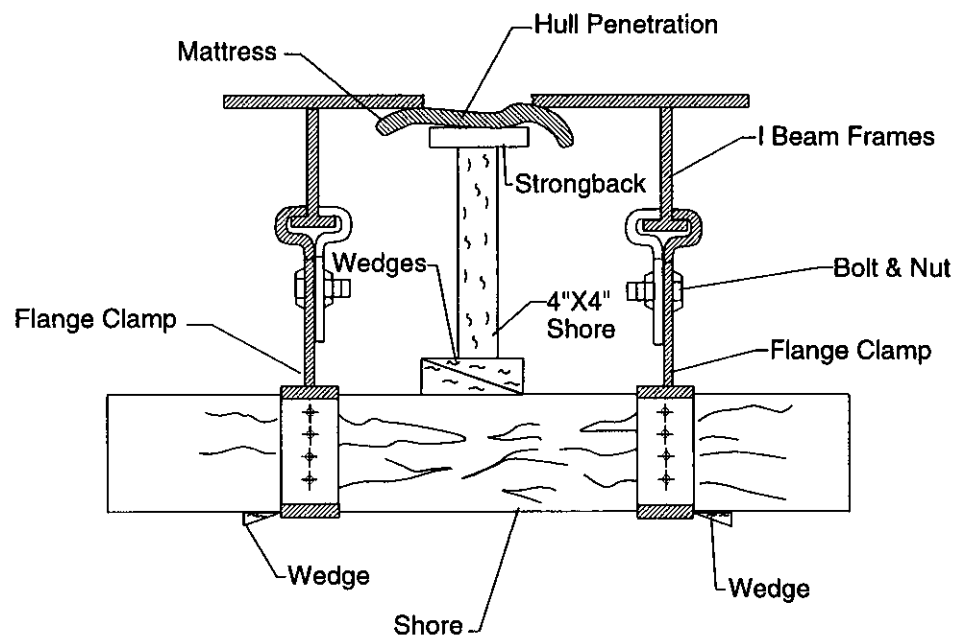


| | | |
|---|---|---------------------------------|
| | | |
| 1 | 1 | Heavy line with eye at each end |
| 2 | 1 | Cloth/blanket |

PATCHING/PLUGGING EVOLUTION - SKETCH #011
Cloth Patch



FLANGE CLAMP



PATCHING/PLUGGING EVOLUTION - SKETCH #012
Emergency Leak Plugging Using Flange Clamp